

ABSTRACT

A method for controlling  $\text{SO}_3$  in a combustion process of a sulfur-containing fuel, the method steps including partially combusting the fuel to create a reducing environment; maintaining the reducing environment for a sufficient period such that  $\text{SO}_3$  is reduced to  $\text{SO}_2$  to  
5 achieve a desirable level of  $\text{SO}_3$ ; and combusting the remainder of the fuel in an oxidizing environment; thereby reducing the conversion of levels of  $\text{SO}_3$  in the flue gases.